AMENDMENTS TO THE CLAIMS

1-4. (Canceled)

5. (Currently Amended) A method for continuous culture of anaerobic microorganisms in a fermenter, wherein the active cell population is maintained constant, when the fermentation is operated continuously, by feeding glucose substrate and alkaline solution alternatively, and wherein the residual glucose concentration of culture liquid is controlled by:

<I> feeding the glucose substrate at a rate based on an alkaline consumption per unit time, wherein there is performed the following:

<I-a> calculating a glucose quantity (G_Q) to be supplied to the fermenter based on a predetermined lower limit of pH;

<I-b> calculating a rate of substrate flow-in (F_2) based on the calculated G_Q; and

<I-c> feeding the substrate at the rate of calculated F_2; and essentially at the same time

<II> recycling glucose substrate back to the fermenter, wherein there is performed the following:

<II-a> bleeding out the culture liquid included the cells, removing the cells; and

<II-b> returning to the fermenter the substrate that the cells have been removed from in the culture liquid and wherein the residual glucose concentration is maintained constant by feeding substrate of molarity that is equal to cumulative consumption molarity of alkaline solution added in order to control pH of the culture liquid.

6. (Canceled)

7. (Previously Presented) The method for continuous culture of the anaerobic microorganisms according to Claim 5, wherein a diluted alkaline solution is used forming a large dilution effect of culture liquid whereby high specific activity of the microorganisms and high volumetric productivity are maintained.

8. (Previously Presented) The method for continuous culture of the anaerobic microorganisms according to Claim 6, wherein a diluted alkaline solution is used forming

a large dilution effect of culture liquid whereby high specific activity of the microorganisms and high volumetric productivity are maintained.

9. (Cancelled)

10. (Previously Presented) The method according to claim 5 wherein said fermentation produces polylactic acid.

11. (Previously Presented) The method according to claim 5 wherein said fermentation produces ethanol.

12. (Previously Presented) The method according to claim 5 wherein G_Q is based on the following equation (3)

$$G_Q = \frac{fF_1 \times 90}{0.95} + C \quad (3)$$ wherein:

f = a coefficient of normality of IN-NaOH in the fermentation,

F_1 = the medium feed rate of glucose and

C = a term for adjustment of residual glucose in the fermentation and the following equation (4):

$$F_1 = \frac{G_Q}{S} \quad (4)$$

wherein S is the glucose concentration (g/l) of the feed solution.

13. (Previously Presented) The method according to claim 9 wherein glucose substrate supply is calculated from the alkaline consumption for glucose intake by the following equation (5) where:

$$G_Q = \frac{fF_1f_H + 180}{0.95} + C \quad (5)$$

where

f = a coefficient of normality of 1N-NaOH in the fermentation

F_1 = the medium feed rate of glucose

f_H = the reciprocal number of ml of 1N-NaOH required for 1 mole (180g) of glucose intake and

C = a term for adjustment of the residual glucose concentration in the fermentation.

14. (New) A method for continuous culture of anaerobic microorganisms in a fermenter, wherein the active cell population is maintained constant, when the fermentation is operated continuously, by feeding glucose substrate and alkaline solution alternatively, and wherein the residual glucose concentration of culture liquid is controlled by:

<I> feeding the glucose substrate at a rate based on an alkaline consumption per unit time, wherein there is performed the following:

<I-a> calculating a glucose quantity (G_Q) to be supplied to the fermenter based on a predetermined lower limit of pH;

<I-b> calculating a rate of substrate flow-in (F_2) based on the calculated G_Q; and

<I-c> feeding the substrate at the rate of calculated F_2; and essentially at the same time

<II> recycling glucose substrate back to the fermenter, wherein there is performed the following:

<II-a> bleeding out the culture liquid included the cells, removing the cells; and

<II-b> returning to the fermenter the substrate that the cells have been removed from in the culture liquid and

wherein in <I-a> the glucose quantity (G_Q) to be supplied to the fermenter is based on a predetermined upper and lower limit of pH, wherein at the upper limit, substrate is fed and at the lower limit, alkaline solution is fed.